



# WINDY BOY 5000-US / 6000-US / 7000-US / 8000-US

WB 5000US / WB 6000US / WB 7000US / WB 8000US



## UL Certified

- For locations requiring UL certification (UL 1741/IEEE-1547)

## High Yields

- 97% peak efficiency
- CEC efficiency of up to 96%
- OptiCool™ active temperature management

## Easy to Use

- Automatic grid voltage detection\*
- Programmable polynomial curve enables free selection of turbines

## Reliable

- Rugged cast aluminum outdoor rated enclosure
- Compatible with Windy Boy Protection Box 600
- 10-year limited standard warranty

## WINDY BOY 5000-US / 6000-US / 7000-US / 8000-US

The customized solution for wind turbine systems

Windy Boy inverters combine the same proven technology present in all Sunny Boy inverters with special firmware that permits direct grid-tied operation with a broad range of wind turbines—without batteries. This greatly reduces the overall system cost because components such as the charge controller, batteries and associated switch gear can be eliminated. Increased total energy capture combined with a reduction of balance of system components greatly reduces the installation and operating costs of a grid-tied wind system. Contact your local wind turbine supplier for information on compatible wind turbine models and system design considerations.

\* US-Patent US7352549B1

Technical data	Windy Boy 5000-US			Windy Boy 6000-US			Windy Boy 7000-US			Windy Boy 8000-US	
	208 V	240 V	277 V	208 V	240 V	277 V	208 V	240 V	277 V	240 V	277 V
<b>Input (DC)</b>											
Max. DC power	5300 W			6380 W			7450 W			8600 W	
Max. DC voltage	600 V			600 V			600 V			600 V	
DC nominal voltage	310 V			310 V			310 V			345 V	
Min. open circuit voltage for activating "Turbine Mode"	300 V			300 V			300 V			300 V	
Operating range "Turbine Mode"	250 V - 600 V			250 V - 600 V			250 V - 600 V			300 V - 600 V	
Max. input current	21 A			25 A			30 A			30 A	
<b>Output (AC)</b>											
AC nominal power	5000 W			6000 W			7000 W			7680 W	8000 W
Max. AC power	5100 W			6100 W			7100 W			7680 W	8100 W
Max. output current	27.9 A	24.1 A	20.9 A	33.3 A	28.9 A	25.0 A	34 A	34 A	32 A	32 A	32 A
Nominal AC voltage	183-229V	211-264V	244-305V	183-229V	211-264V	244-305V	183-229V	211-264V	244-305V	211-264 V	244-305 V
AC grid frequency / range	60 Hz / 59.3 - 60.5 Hz			60 Hz / 59.3 - 60.5 Hz			60 Hz / 59.3 - 60.5 Hz			60 Hz / 59.3 - 60.5 Hz	
Power factor (cos φ)	1			1			1			1	
Phase conductors / connection phases	1 / 1			1 / 1			1 / 1			1 / 1	
<b>Efficiency</b>											
Max. efficiency	96.8%			97%			97.1%			96.5%	
CEC	95.5%	95.5%	95.5%	95.5%	95.5%	95%	95.5%	96%	96%	96%	96%
<b>Protective devices</b>											
DC reverse-polarity protection	●			●			●			●	
AC short-circuit protection	●			●			●			●	
Galvanically isolated	●			●			●			●	
Protection class / overvoltage category	I / III			I / III			I / III			I / III	
<b>General data</b>											
Dimensions (W / H / D) in mm (in)	468 / 613 / 242 (18 / 24 / 9.5)										
Weight	65 kg (143 lb)			65 kg (143 lb)			65 kg (143 lb)			69 kg (143 lb)	
Operation temperature range	-25 °C ... +45 °C (-13 °F ... +113 °F)										
Noise emission (typical)	≤ 44 dB			≤ 45 dB			≤ 46 dB			www.SMA-Solar.com	
Internal consumption in standby	0.1 W			0.1 W			0.1 W			0.1 W	
Topology	LF transformer			LF transformer			LF transformer			LF transformer	
Cooling concept	OptiCool			OptiCool			OptiCool			OptiCool	
Mounting location: indoor / outdoor (NEMA 3R)	●/●			●/●			●/●			●/●	
<b>Features</b>											
Display: text line / graphic	●/-			●/-			●/-			●/-	
Communication: RS485 / Bluetooth	○/○			○/○			○/○			○/○	
Warranty: 10 years	●			●			●			●	
Certificates and permits	FCC, Part 15, Class A & B, UL 1741, IEEE-1741										
● Standard features ○ Optional features - Not available											
Type designation	WB 5000US			WB 6000US			WB 7000US			WB 8000US	

